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## (54) COMPOUND FOR BONDING CERAMIC AND CERAMIC BONDED PRODUCT

### (57)Abstract:

**PURPOSE:** To provide a compound capable of giving ceramic bonded products improved in heat resistance, chemical resistance and adhesivity by mixing (A) prescribed polyhexamethyl cyclosilazane, (B) polymethyl carbosilane, (C) silicon powder and/or SiC powder, and a solvent.

**CONSTITUTION:** Methyl silazane, etc., is polymerized to produce the component A having an average mol.wt. of  $\geq 800$ . Methyl polysilane is decomposition- polymerized to produce the component B which is a precursor of SiC. The component A, the component B and the component C comprising a powdery material having an average particle diameter of  $0.2\text{--}100\mu\text{m}$  are compounded with each other at a weight ratio of 1:0.05-0.5:2-20 to provide the compound (D), which is then mixed with a solvent such as xylene in an amount of 0.05-0.5 times weight that of the component D to provide a compound (E) for bonding ceramics. If necessary, ceramic members used as members for treating silicon wafers are bonded with the component E and subsequently heated at  $\geq 1000^\circ\text{C}$  to produce the ceramic bonded product.

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